

Columbia University Optics and Quantum Electronics Seminar



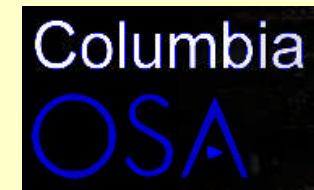
“Metamaterials: From Structure to Function”

Professor Nader Engheta

University of Pennsylvania

Date/Time: Thursday, October 11th, 2.30PM – 3.15PM

Location: Davis Auditorium



Abstract: As the field of metamaterial reaches a certain level of development, new directions and novel vistas will appear in the horizon. Modularization and parameterization of metamaterials may be exploited to provide new functionalities and possibilities stemming from such interesting platforms. These may include “meta-systems” that can be formed on the metamaterial paradigms, and new functionalities as “meta-functions” resulting from proper combinations of meta-systems and metamaterials. In this talk, I will discuss some of these concepts, topics, and directions in the field of metamaterials that are being explored in my group.

Bio: Nader Engheta is the H. Nedwill Ramsey Professor at the University of Pennsylvania with affiliations in the Departments of Electrical and Systems Engineering, Bioengineering, and Physics and Astronomy. He received his B.S. degree from the University of Tehran, and his M.S and Ph.D. degrees from Caltech. Selected as one of the Scientific American Magazine 50 Leaders in Science and Technology in 2006 for developing the concept of optical lumped nanocircuits, he is a Guggenheim Fellow, an IEEE Third Millennium Medalist, a Fellow of IEEE, American Physical Society (APS), Optical Society of America (OSA), American Association for the Advancement of Science (AAAS), and SPIE-The International Society for Optical Engineering, and the recipient of the 2012 IEEE Electromagnetics Award, the 2008 George H. Heilmeyer Award for Excellence in Research, the Fulbright Naples Chair Award, NSF Presidential Young Investigator award, the UPS Foundation Distinguished Educator term Chair, and several teaching awards including the Christian F. and Mary R. Lindback Foundation Award, S. Reid Warren, Jr. Award and W. M. Keck Foundation Award. His current research activities span a broad range of areas including metamaterials and plasmonics, nanooptics and nanophotonics, biologically- inspired sensing and imaging, miniaturized antennas and nanoantennas, physics and reverse-engineering of polarization vision in nature, mathematics of fractional operators, and physics of fields and waves phenomena. He has co-edited the book entitled “Metamaterials: Physics and Engineering Explorations” by Wiley-IEEE Press, 2006. He was the Chair of the Gordon Research Conference on Plasmonics in June 2012.

Hosted by **the Columbia OSA Student chapter, and the City College OSA Student chapter**

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